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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/737,033	12/14/2000	Jani Antero Mantyjärvi	617-010002-US(PAR)	7881

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EXAMINER

LE, NHAN T

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/737,033

Applicant(s)

MANTYJARVI ET AL.

Examiner

Nhan T Le

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: (Fig. 5) should be removed from Abstract page 21.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which depend on claim 30, since there is no claim 30 in the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 3-5, 8, 9, 11-14, 17, 18, 20, 22-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Davis (US 6,292,674).

As to claim 1, Davis teaches a terminal for a communication system, the terminal comprising a first detector arrangement (see fig. 4, numbers 406, col. 5, line 67) and a

Art Unit: 2685

second detector arrangement (see fig. 4, number 408, col. 6, lines 1-4), the first and second detector arrangements being based on different principles of detecting a contact between at least one surface of the terminal and the skin of the user of the terminal (see col. 6, lines 1-5), wherein at least one function of the terminal is controlled based on signals from the first and second detector arrangements (see col. 4, lines 32-37).

As to claim 3, Davis teaches the terminal according to claim 1 comprising a controller for controlling the at least one function of the terminal (see fig. 1, number 22, col. 1, lines 45-55, col. 6, lines 1-5).

As to claim to claim 4, Davis teaches the terminal according to claim 1, wherein switching between different modes of operation of the terminal is arranged to be triggered based on signals from the detector arrangements (see col. 1, lines 45-55).

As to claim 5, Davis teaches the terminal according to claim 4, wherein the terminal is switched between a standby mode and an active mode (see fig. 8, numbers 800, 806, col. 7, lines 18-26).

As to claim 8, Davis teaches the terminal according to claim 1, wherein the operation of an alarm producing means is controlled based on signals from the detector arrangements (see fig. 8, number 810, col. 7, lines 32-37).

As to claim 9, Davis teaches the terminal according to claim 1, wherein the detector arrangements are arranged to sense a contact between the terminal and the hand of the user (see fig. 4, numbers 406, 408, col. 5, lines 65-67, col. 6, lines 1-5).

As to claims 11, 12, Davis teaches the terminal according to claim 1, wherein one of the detector arrangements comprises a galvanic skin response detection arrangement,

Art Unit: 2685

which is adapted to detect a gripping pressure caused by the hand of the user of the terminal (see fig. 2, numbers 208, 210, col. 5, lines 29-50).

As to claim 13, Davis teaches the terminal according to claim 1, wherein one of the detector arrangements is arranged to detect a pressure caused by the hand of the user (see fig. 2, numbers 208, 210, col. 5, lines 29-50).

As to claim 14, Davis teaches the terminal according to claim 13, wherein a predefined pressure pattern is arranged to be detected (see col. 6, lines 65-67, col. 7, lines 1-14).

As to claim 17, Davis teaches the terminal according to claim 1, wherein at least a part of at least one detector arrangement is provided in a detachable part of the terminal (see fig. 2, number 204, col. 5, lines 29-32).

As to claim 18, Davis teaches the terminal according to claim 1, wherein at least one of the detector arrangements is integrated in the cover material of the terminal (see fig. 2, numbers 208, 210, col. 5, lines 28-35).

As to claim 20, Davis teaches the terminal according to claim 1, wherein the control of the function is based on adaptive use of the information provided by the signals from the detector arrangements (see col. 4, lines 32-37).

As to claim 22, Davis teaches the terminal according to claim 3, wherein the controller is adjustable so that the controller provides different control instructions for the function controlled by the controller depending on the settings of the controller (see col. 4, lines 27-37).

As to claim 23, Davis teaches the terminal according to claim 1, wherein the control of the function is based, in addition to signals from the detector arrangements, on temperature (see col. 6, 1-5).

As to claim 24, Davis teaches the terminal according to claim 1, wherein at least one of the detector arrangements is provided in a handset or headset of the terminal (see fig. 4, numbers 406, 408, col. 5, lines 65-67, col. 6, lines 1-5).

As to claim 25, Davis teaches the terminal according to claim 1, wherein the terminal comprises a mobile station of a radio communication system (see abstract).

As to claim 26, the claim is rejected for the same reason as stated in claim 1 above.

As to claim 27, the claim is rejected for the same reason as stated in claim 2 above.

As to claim 28, the claim is rejected for the same reason as stated in claim 1 above.

As to claim 29, the claim is rejected for the same reason as stated in claim 1 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674).

As to claim 2, Davis teaches the terminal according to claim 1, wherein a control operation is provided if at least one of the first and second detector arrangements output a signal that indicates a contact between the terminal and the skin of the user

(see col. 6, lines 1-5). Davis fails to teach the terminal according to claim 1, wherein a control operation is provided only if the first and second detector arrangements both output a signal that indicates a contact between the terminal and the skin of the user. However, it is noted that in Davis at least one of the first and second detector arrangement output a signal also reads on both of the first and second detector arrangements output a signal as claimed. Therefore, it would have been obvious to one of ordinary skill in the art to modified Davis such that a control signal is provided only if the first and second detector arrangements both output a signal in order to prevent the phone operates when the user accidentally touch one of the detector arrangement.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Cairns (US 5,930,703).

As to claim 6, Davis teaches the terminal according to claim 1, wherein a keypad of the terminal is operated based on signals from the detector arrangements (see col. 7, lines 15-31). However, Davis fails to teach a keypad lock. Cairns teaches the keypad lock (see col. 4, line 55- col. 5, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Cairns into the system of Davis in order to provide more security.

4. Claims 7, 10, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Giel (US 5,881,377).

As to claims 7, 10, 15, Davis fails to teach the terminal according to claim 1, wherein the operation of a display of the terminal is controlled based on signals from the detector arrangements; the detector arrangements are arranged to sense a contact

Art Unit: 2685

between the terminal and the cheek and/or ear of the user, the detector arrangements comprises a capacitive proximity sensor. Giel teaches the terminal, wherein the operation of a display of the terminal is controlled based on signals from the detector arrangements (see col. 5, lines 12-23); the detector arrangements are arranged to sense a contact between the terminal and the cheek and/or ear of the user (see col. 5, lines 5-11), the detector arrangements comprises a capacitive proximity sensor (see col. 5, lines 5-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Giel into the system of Davis in order to save terminal power (see col.6, lines 19-38 as suggested by Giel).

As to claim 16, the combination of Davis and Giel teaches the capacity sensitivity sensor inside the terminal (see col. 5, lines 5-11). However, Giel fails to teach the capacitive proximity sensor is placed on the inner surface of a cover of the terminal or an accessory thereof. However, the above reference would not render the claim patentable over Davis and Giel, because it would merely depend on where to place the capacity proximity sensor in the phone. Therefore, it would have been obvious to one of ordinary skill in the art to modify the combination of Davis and Giel such that the capacity proximity sensor is placed on the inner surface cover of the phone so that the proximity could be more easily detected.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Budd (US 6,360,104).

As to claim 19, Davis fails to teach the terminal according to claim 1, wherein at least one of the detector arrangements comprises at least three sensor elements, the at

Art Unit: 2685

least three sensor elements being arranged in an array on the surface of the terminal.

Budd teaches the terminal, wherein at least one of the detector arrangements comprises at least three sensor elements, the at least three sensor elements being arranged in an array on the surface of the terminal (see fig. 5, numbers 140, 142, col. 5, lines 33-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Budd into the system of Davis in order to detect user's holding regardless of the actual location of user's finger (see col. 5, lines 40-45, as suggested by Budd).

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 6,292,674) in view of Nakajima (US 5,740,523).

As to claim 21, Davis fails to teach the terminal according to claim 1, wherein the sensitivity of at least one of the detector arrangements is adjustable. Nakajima teaches the terminal, wherein the sensitivity of at least one of the detector arrangements is adjustable (see col. 13, lines 23-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Nakajima into the system of Davis in order to achieve the detection sensitivity within the range of the tolerance of the electrical component (see col. 13, lines 33-38, as suggested by Nakajima).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Irube (US 6,377,818) teaches communication terminal apparatus.

Art Unit: 2685

Girvas (US 6,246,862) teaches sensor controlled user interface for portable communication device.

Keirinbou (US 6,285,893) teaches portable radio device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T Le whose telephone number is 703-305-4538. The examiner can normally be reached on 08:00-05:00 (Mon-Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nhan Le

Nguyen V
1-10-04

NGUYENT.VO
PRIMARY EXAMINER